Stream Team Annual Report

A Summary of Stream Team Activities



Who says work can't be fun?! Stream Team 293 had a blast collecting dock foam, tires, and trash at Lake Jacomo on the East Fork of Little Blue River in Jackson County.

Missouri Stream Team . . . promoting citizen awareness and involvement in river and stream conservation.



◆ Education ◆ Stewardship ◆ Advocacy ◆

2003

uring 2003, the Missouri Stream Team Program celebrated its fourteenth year by signing on its 2,424th Team. Like many growing teenagers, the Program is taking on new challenges and continues to accomplish amazing things.

Flowing water is magical and mesmerizing to us all, and most Missourians appreciate our beautiful stream resources. What makes Stream Team members different is their interest in protecting and improving those streams. They take an active role in becoming informed and educated. They become involved to make a difference, and they are willing to contribute their time, talents, and energies to the streams we all know and enjoy. Their dedication and determination are the heart and soul of the Program.

Many of the Teams who signed on years ago continue to be active and report activities to us regularly. During 2003, Teams reported participation in 29 different types of activities. Hours of service topped out at 99,300 hours. That gives a grand total of 585,593.68 hours of service since our detailed record-keeping began seven years ago.

A few outstanding accomplishments include:

- Agricultural Institute and Herpetology Academy workshops held
- ♦ Participation in Worldwide Monitoring Day
- ♦ Photo Point Monitoring activity introduced
- New innovations added to the Stream Team website www.mostreamteam.org
- Large-scale cleanups held on the Blue and Missouri Rivers and the Meramec River basin
- ♦ 14 accesses adopted
- 372 tons of trash picked up
- ♦ 9,299 trees planted
- ♦ 185 storm drains stenciled
- ♦ 11 habitat improvement projects completed

More of our 2003 accomplishments are detailed in this report. Congratulations, Stream Teams, on another successful year!

Stream Team Success

Water Quality Monitors Can't Get Enough

Stream Team has taken the lead in monitoring activities in Missouri for ten years now! Monitoring continues to be our second most popular activity, outpaced only by litter pickups. Volunteers want to participate in monitoring because it's hands-on, it's real science, and their data can be used to make a difference. Data is used by state agencies, municipalities, watershed partnerships, and more. In many areas where we historically had no water quality data, we now have solid, reliable, volunteer data.

Over the last ten years we have had over 4,200 participants in our Volunteer Water Quality Monitoring workshops. During 2003, we trained 537 participants. This year we received 1,960 data sheets which included data from 455 sites. We held 41 workshops: fourteen Introductory classes, ten Level 1 classes, five Level 2 classes, and eleven Level 3 classes. Volunteers who continue through advanced levels of training gain additional expertise and their data provides a higher confidence level.

We continue to refine our materials and presentation methods. Our staff work closely together to make our workshops the best they can be. Converting our presentations to Power Point is one example. Our new, "slick" Power Point presentations will begin in spring 2004!

A pilot Level 4 Water Quality Monitoring effort began this year on Hinkson Creek in Boone County. Four Level 3 volunteers attended comprehensive training in field sample collection and documentation. Along with their usual field measurements, these volunteers have collected a large number of water samples for detailed analysis by the Department of Natural Resource's environmental laboratory.

For the first time, a watershed-based workshop series was held for volunteers in the Peruque Creek watershed in St. Louis. Volunteers went through Introductory and Level 1 training and held a "monitoring day blitz." Data from this watershed is still flowing in! Another special watershed workshop is planned in March '04 for the Bull and Swan Creek watersheds.

Worldwide Monitoring Day

Meramec Monitoring Day was organized in conjunction with Worldwide Monitoring Day, October 18. Fifteen Stream Teams participated and eighteen sites were monitored. Several of the Teams gathered for a wonderful breakfast provided by Joan King, leader of Stream Team 1000. Data was submitted online at the Worldwide Monitoring Website (www.worldwatermonitoringday.org/) as well as to Stream Team. Numerous other sites were monitored throughout the state by other Stream Teams.

Stream Team Academy Continues To Grow

Two new Academy workshops were held this year. The first, Herpetology, taught by MDC Herpetologist Jeff Briggler, was overwhelmingly popular. In fact, because of the large number of people on the waiting list for this workshop, another will be held in 2004. The workshop was held on the Current River at the Jerry J. Presley Conservation Education Center and included classroom instruction as well as field trips to several nearby sites.

The second workshop was our first Agricultural Institute which included information from our *Understanding Streams* workshop in conjunction with an *Introductory Water Quality Monitoring* course for Missouri agriculture teachers. This course also included field trips, a watershed bus tour, and on-site monitoring instruction. Many of the attendees expressed plans to incorporate information from the class into their own agriculture curriculum.

Adopt-An-Access Opportunities Abound

The Adopt-An-Access Program continues to be a popular way for volunteers to pitch in and provide positive role models for respon-



Annual Stream Team Awards were presented at the Meramec Watershed Picnic on July 26, 2003 at Meramec State Park. Congratulations to all volunteers, and thanks for another year of dedication to Missouri streams!

Stream Team Growth

sible use of our stream resources. Fourteen accesses were adopted in 2003. Adopters completed litter pickups, landscaping, privy maintenance, and mowing. The Gallatin R-V School Stream Team (#697) added an innovative service: they maintain a bulletin board about stream ethics and local Stream Team projects. With over 300 Department of Conservation accesses, and numerous others maintained by other entities, there are plenty of accesses waiting to be adopted. A 2003 survey of adopters and access managers indicated that the adoption agreements have been favorable to all parties.

Ready, Aim, Shoot

Ye are always trying to offer new opportunities for Teams. The newest on the smorgasbord of Stream Team Activities is Photo Point Monitoring. Taking photographs is one of the most basic monitoring techniques. As the old adage goes, a picture is worth a thousand words. While photographs cannot tell the entire story about a situation, project, or practice, a great deal of information can be gathered from photographs taken at the same point over a number of vears.

Photographs often reveal changes that measurements miss and are an easy way to help others become aware of differences brought on by the effects of good or bad land management practices within a watershed. They can serve as a record of how much a stream has improved or declined since monitoring or improvement projects began. Teams are already participating and we hope to see more photos coming in.

Stream Team Continues To Help Outside State Lines

Te provided information about our water quality monitoring program to Vermont and Tennessee. We also assisted a London, UK organization by adding to their list of "weird litter" collected in watercourses worldwide. It's encouraging to think that all over the world, folks are picking up trash, monitoring water quality, and taking part in programs just like ours!

And The Winner Is . . .

Every year the Stream Team Program honors six Teams with outstanding accomplishments and participation throughout the year. Because the numbers of outstanding folks continues to grow, honorable mention awards were also added to each category this year.

Adult Category

Awareness: Team 151, Valley Park Lions Honorable Mention – Team 1857, Fenton Stream Team

Honorable Mention – Team 72, Robert Bass

Leadership: Team 713, Upper Jacks Fork River Rats

Honorable Mention – Team 1645, Bonne Femme Watershed Partnership

Stewardship: Team 714, Melody Torrey Honorable Mention - Team 387, The Girshner Family

Youth Category

Awareness: Team 432, Reeds Spring High School

Honorable Mention - Team 1690, South Harrison High School

Leadership: Team 1142, Noel

Conservation Club

Honorable Mention – Team 1634, Parkway South Middle School

Stewardship: Team 697, Advanced Biology Gallatin R-V High School Honorable Mention – Team 473, Ozark Hellbenders, Licking High School

Becky Denney, Stream Team 1546, also received the Missouri Chapter of the American Fisheries Society Citizens' Award for her tireless efforts as a citizen representative on the In-stream Gravel Mining Rules Work Group, through which she helped shape future state regulations for the mining of sand and gravel from Missouri streams.

Congratulations to all the winners listed here and those that won awards within their communities or watershed groups!

"Stash Your Trash" Bags It

Ctash Your Trash, sponsored by the Stream Team Program, continued to provide trash bags to canoe outfitters and volunteers. During 2003, Stream Team provided 228,825 bags to liveries and 13,409 bags for Stream Team projects. To put this into perspective, all these trash bags would hold nearly 1,278 tons of trash! Not to mention the fact that many liveries use bags over and over again. Thank goodness all that trash ended up in our bags and not in Missouri's streams.



Burt Stewart of Stream Team 288, Northern Ozark Rivers Recreation Association, calibrates his pH pen prior to testing the Meramec River on World Monitoring Day, October 18, 2003.

Stream Team Potential

Volunteers Appreciate Their "Chance" To Win

uarterly incentive drawings continued this year, and members had a chance to win items like fishing trips, boats, outdoor gear, clothing, jewelry, lab equipment, and home furnishings. Several prizes throughout the year were donated by dedicated members. Stay tuned for more cool prizes next year!

officials of their stream management and development concerns.

Other established Associations, like Show-Me Clean Streams in central Missouri and the Scenic Rivers Stream Team Association in south-central Missouri, continue to lead their communities in stream education, stewardship, and advocacy. They are united to address the issues in their watersheds and comprise some of the best movers and shakers within the program.

A new periodic addition to the Channels newsletter will be Stream Team Academy Fact Sheets. These newsletter inserts will educate members on a variety of stream-related subjects. They are designed to be collected and stored in a three-ring binder in order to provide future reference.

As usual, our future efforts will be guided by our innovative volunteers. Staff will continue to provide guidance and direction to an ever-growing group of river enthusiasts!

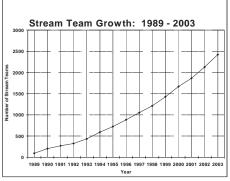
The attached pages summarize more 2003 accomplishments. Total numbers in the report are based on activities reported, although we know that actual contributions are much greater. Phone surveys and comparisons between "known data" and "reported data" indicate that only a fraction of Stream Team activities are reported.

Need Stream Info? Check Out Our Website: www.mostreamteam.org

he Stream Team website provides a wealth of information for Stream Teams. Now there is an even better reason to check it out! We have recently unveiled our new Stream Team Interactive Map, an interactive mapping web page showing Stream Team activity locations throughout the state. A click on a location allows you to view volunteercollected water quality data. Just click on the Stream Team Interactive Map link on our home page to learn more about how you can use this powerful new tool.

What Does 2004 Hold?

tream Team staff race to keep up with the Dever-expanding number of Teams in the state. Sign-up is anticipated to continue its upward expansion. In the world of volunteers, Stream Team has an extremely high retention rate.



2004 Academy workshops will include three new courses held regionally on Water and The Law, another new workshop for flyfishing entomologists called Fly Fishing for Invert Nuts, repeats of our Herpetology and Crayfish workshops, and possibly a new workshop on Mussels.

Missouri River Relief has several exciting events planned as their Voyage of Recovery blazes the trail for the commemorative Lewis and Clark flotilla. The group will hold river cleanups from St. Louis to Kansas City throughout May and June. Citizens from up and down the river will have a chance to take part in improving the Big Muddy.

Strong New Partnerships Grow

tream Team Associations, partnerships of Teams, continue to develop throughout the state. One of the newest is the Little Blue River Watershed Coalition.

This coalition developed out of several new and older Teams who are partnering to address issues within their watershed. Like many newly formed groups, they are reaching out to other interested citizens in the watershed and are working to summarize issues they want to address. Education is a big part of their current efforts, and they plan to spend time informing local committees and elected



Stream Teams and water have the potential for magic . . . baseballs, bobbers, and boys make it happen. Missouri River Relief at St. Charles last July yielded some "trash treasures" this little Teamer couldn't resist rescuing.

Stream Team Activity Totals 2003

Stream Team Activity Totals - 2003

These totals are based on activity reports submitted by Stream Teams.

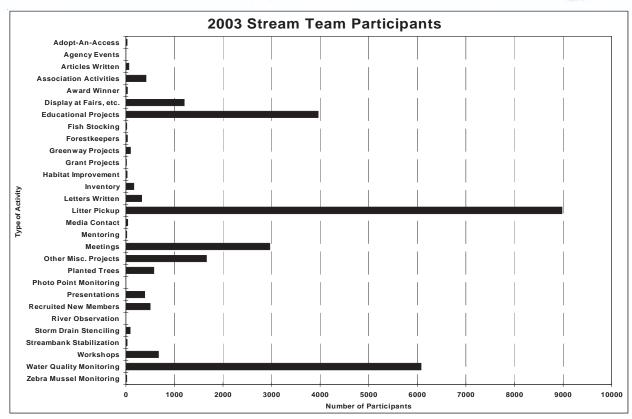
Activity	Participants	Time Spent (volunteer hours)	Number of Units	Value (x \$ 17.19*)
Adopt-An-Access	30	50.5	30 accesses	\$868.10
Agency Events	2	34	2 events	\$584.46
Articles Written (newspaper, newsletter, etc.)	62	83	55 articles	\$1,426.77
Association Activities	418	1,871.5	1,871.5 hours	\$32,171.09
Award Winner	34	47	34 awards	\$807.93
Display at Fairs, etc.	1,204	5,673.5	53 events	\$97,527.47
Educational Projects	3,957	13,848	275 events	\$238,047.12
Fish Stocking	24	92	2 event	\$1,581.48
Forestkeepers Forest Monitoring	33	90	8 trips	\$1,547.10
Greenway Development Projects	97	494	23 projects	\$8,491.86
Grant Projects	13	110	4 projects	\$1,890.90
Habitat Improvement	31	103	11 projects	\$1,770.57
Inventory	164	478	29 inventories	\$8,216.82
Letters Written in Support of ST Issue	324	384	674 letters	\$6,600.96
Litter Pickup	8,976	40,303	372 tons of trash	\$692,808.57
Media Contacts	42	62	44 interviews	\$1,065.78
Mentoring	19	81	81 hours	\$1,392.39
Meetings (held or attended)	2,963	4,502	2,963 attendees	\$77,389.38
Other Miscellaneous Projects**	1,663	7,640	115 projects	\$131,331.60
Planted Trees	579	2,048.5	9,299 trees	\$35,213.72
Photo Point Monitoring	1	3	3 trips	\$51.57
Presentations to Other Groups	387	855	66 presentations	\$14,697.45
Recruited New Members	500	1138	565 people	\$19,562.22
River Observation (observations related to possible pollution events)	5	8	8 hours	\$137.52
Storm Drain Stenciling	90	240	185 drains	\$4,125.60
Streambank Stabilization Projects	27	97	83 events	\$1,667.43
Workshop (attended or conducted)	675	5,484	675 attendees	\$94,269.96
Water Quality Monitoring	6,079	13,440.5	931 trips	\$231,042.19
Zebra Mussel Monitoring	18	39	8 trips	\$670.41
Totals	28,417	99,299.74		\$1,706,962.50

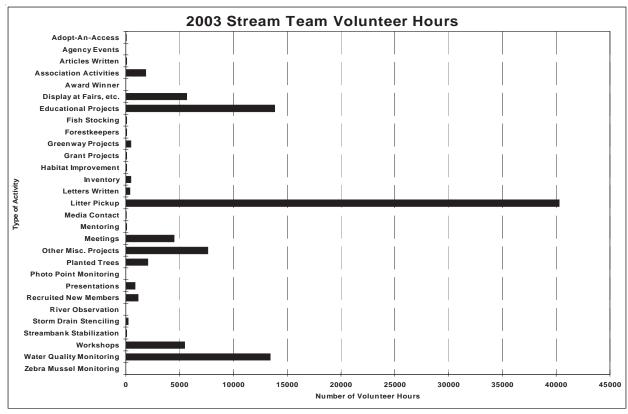
^{* \$17.19/}hour is the current national non-agricultural wage rate for the estimated value of volunteer time. This figure is provided annually courtesy of the U.S. Department of Labor.



^{**} Includes projects like web site development, newsletters, scout programs, fund-raising projects, etc.

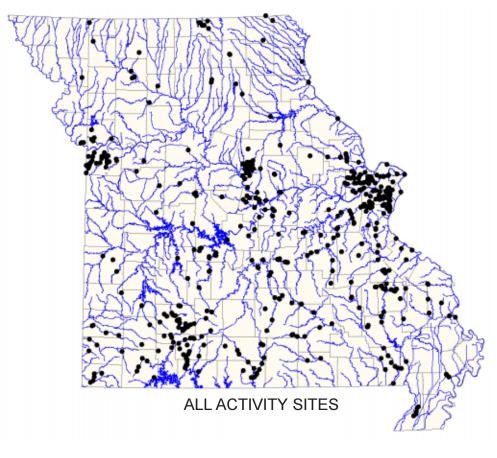
Stream Team Activity Charts 2003

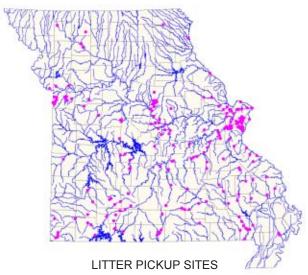


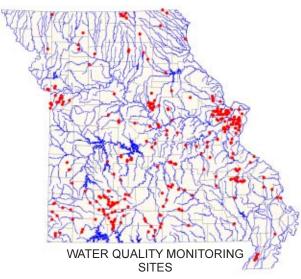


Stream Team Activity Sites 2003

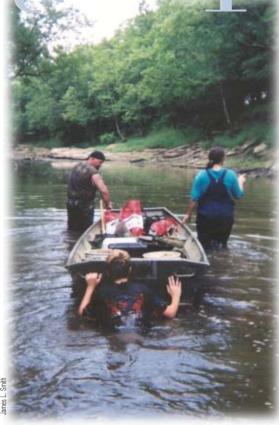
These maps indicate sites where reported activities occured in 2003. Some activity sites are not mapped because we do not have detailed site information, and many activities are not site-specific.







Stream Team Reflections



The Marmaton Wolf Pack (Team 2079) cleaned up the Marmaton River last July. They floated 10 miles downstream from Vernon County Bridge #759 and collected 10 bags of trash.



Missouri River Relief was another big hit this year! The photo (above) from St. Charles showing Chad Pregracki's trash-pushing tug and a boatload of eager volunteers is typical of scenes from St. Charles and Kansas City. Over 1,000 caring citizens from Missouri's two largest urban areas assisted with litter pickups. And more than 1,500 attended educational events held the day before each of the cleanups.



Adam Lett reported the Noel Conservation Club (Team 1142) held a litter pickup July 14, 2003, on the Elk River and filled two trucks with trash. Also, thank you, Wayside Campground, for your generous assistance.



Arnold Stream Team 211 repainted their favorite Meramec River trash treasure to say, "Thank you from the bottom of my heart!" We'd like to say the same to Team 211.

Commitment ◆ Respect ◆ Cooperation ◆



Trees, trees, and more trees! Stream Team 1092 (Moreland Ridge Middle School) planted 400 trees and picked up trash along Sni-A-Bar Creek near Grain Valley in Jackson County. In the past five years, teacher Diane Fitzgibbons and the seventh-graders of Team 1092 have planted over 2,000 trees in the same area in hopes of reducing erosion and adding habitat for local species.



North Kansas City Rotary Club members (Stream Team 208) regularly conduct litter pickups and water quality monitoring on their adopted stream, Shoal Creek in Clay County. Thanks, Team 208, for your many years of dedicated service!



A watershed tour, part of the four-day *Agriculture Institute*, focused on positive and negative watershed management, both urban and rural. Twenty-two high school agriculture teachers attended and received training on stream function, watershed inventory, and bio-monitoring. They will be sharing what they learned with their students, our landowners of tomorrow.



This was the 36th year for Operation Clean Stream, one of the longest-running river cleanup projects in the nation! Volunteers working on the Meramec, Huzzah, Courtois, Big, Dardenne, and Bourbeuse collected over 68 tons of trash. Organizers provided music, games, and food for the volunteers at several locations along the rivers. We think the rewards were well deserved, don't you?



The Valley Park Lions (Stream Team 151) officially adopted the Valley Park Public Fishing Access in south St. Louis County. Lions volunteers are committed to keeping the access clean and maintained.

◆ Strength ◆ Accomplishment ◆ Heart ◆



Have you ever seen a more fascinated audience? Young members of Stream Team 2000 enjoyed a day on the Little Piney River with staff biologists Tim Rielly and Chris Riggert as they sampled macroinvertebrates. This Team of homeschoolers also had a wonderful time playing "catch-and-release" crayfish . . . by hand! Science and fun . . . it doesn't get any better than that.



In April, the Stream Team Academy sponsored its first Herpetology workshop. What is herpetology you ask? Why, it's the study of reptiles and amphibians! Stream Teamers with instructor Jeff Briggler (above) examined a western slimy salamander during one of the field trips taken to a cave, a glade, and several local ponds near Eminence.



In January 1989, the first group in Missouri signed up as Stream Team 1. Now, 14 years later, the Roubidoux Fly Fishers have invited the Fort Leonard Wood Seabees to be honorary members. In August, the Roubidoux Fly Fishers and Fort Leonard Wood Seabees pulled together to clean the Roubidoux in Pulaski County, filling donated dumpsters in Waynesville's city park with four tons of trash.



Almost 500 volunteers (just like the proud group shown above) donated a day of hard effort to Missouri River Relief last September. In all, 6 tons of trash were removed from the Missouri River at St. Charles, with another 12 tons collected at Kansas City. Equally impressive, much of that trash was sorted for recycling by tireless volunteers on the river barge!

◆ Character ◆ Effort ◆ Enthusiasm ◆



On World Monitoring Day last October 18, Dot Anderson (Team 2108) was one of over 100 Stream Teams who monitored water quality on their adopted streams during the month of October. Dot and her friend conducted macroinvertebrate sampling on the Meramec River and were excited to find their first hellgrammite, a pollution sensitive organism (see inset above).



Members of Stream Team 473, The Ozark Hellbenders of Licking High School, are very proud of their Teammates who won 2nd place in the High School Science Fair. They also placed 2nd in the Texas County Soil and Water Conservation District (SWCD) competition. Congratulations to Team 473 and their teacher, Dan Hatch, for their many awards and years of service with the Stream Team Program.



In June, the City of Wentzville's McCoy Creek Stream Team conducted its 6th Annual McCoy Creek Cleanup. Team 1062 was formed in 1998, and has been responsible for many tremendous improvements on McCoy Creek: bank stabilization projects involving rock riprap and willow staking, tree plantings, noplow zones, and litter pickups, to name only a few. Thanks, Stream Team 1062, for being such an inspiration to us all!



Look at that pile of tires! Dolores Swoboda sent us this photo of Stream Team 3 (The Bourbeuse River Clean Stream Team) hosing off tires in preparation for recycling. Team 3 cleaned all of the Bourbeuse River during Operation Clean Stream on August 23, 2003. An estimated 300 participants spent the entire day collecting enough trash and tires to fill two dump trucks. Afterwards, all were invited to a potluck at the Beaufort Lions Club. What a fine example Team 3 has set for us since 1989! Thank you, Dolores and Devil's Back Floats, for your outstanding leadership.

Stream Team Staff

Thank you, Stream Teams, for another year of hard work and dedication. Don't forget, we are here to help!





Back Row: Chris Riggert (MDC), Mary Utrecht (MDC), Donna Menown (DNR), Paul Calvert (MDC), Tim Rielly (MDC)
Front Row: Bob Schulz (MDC), Sherry Fischer (MDC), Priscilla Stotts (DNR), Mike Irwin (DNR), Mark Van Patten (MDC)

Stream Team is sponsored by Missouri Department of Conservation Missouri Department of Natural Resources Conservation Federation of Missouri





